

PAVAN KALYAN PADALA

Daytona Beach, FA | +1 (848)203-0177 | pavankalyanpadala349@gmail.com | [LinkedIn](#)

PROFESSIONAL SUMMARY

Innovative Data Scientist with 2+ years of experience designing, training, and deploying AI-powered solutions that drive measurable business outcomes. Skilled in building predictive and generative models using Python, TensorFlow, PyTorch, and Hugging Face Transformers, with expertise in data engineering, feature optimization, and model fine-tuning for high-impact use cases. Adept at developing scalable ETL pipelines, integrating AI into enterprise platforms, and leveraging cloud technologies (AWS, Azure, GCP) to deliver cost-efficient, production-ready systems. Proven track record in translating complex analytics into actionable insights via advanced visualization tools such as Power BI and Tableau, enabling faster decision-making and operational efficiency. Recognized for bridging cross-functional collaboration, ensuring responsible AI governance, and mentoring teams to accelerate AI adoption in real-world workflows.

TECHNICAL SKILLS

Programming & Scripting: Python (pandas, numpy, scikit-learn, TensorFlow, PyTorch, Hugging Face Transformers), R, SQL (MySQL, PostgreSQL)

Machine Learning & AI: Supervised & Unsupervised Learning, Deep Learning, NLP, Generative AI Models, Model Deployment, Feature Engineering, Model Validation, Hyperparameter Tuning

Data Visualization & BI: Power BI, Tableau, Matplotlib, Seaborn, Plotly, Dash

Databases & Data Engineering: SQL, NoSQL (MongoDB), Data Warehousing, ETL Pipelines, Data Modeling, Query Optimization

Cloud Platforms & Tools: AWS (S3, EC2, Lambda, SageMaker), Azure ML, Google Cloud AI Platform, Docker, Kubernetes

Big Data & Distributed Computing: Apache Spark, Hadoop, Kafka

Development & Collaboration: Git, Jupyter Notebooks, VS Code, REST APIs, Agile Methodologies

Specialized Skills: Data Wrangling, Statistical Analysis, Automation with Python, Workflow Orchestration (Airflow)

PROFESSIONAL EXPERIENCE

Data Scientist

April 2022 - June 2023

Infosys Limited

- Utilized Python and scikit-learn to build predictive models that increased anomaly detection accuracy by 22%, significantly cutting down manual intervention in system maintenance.
- Enhanced data pipeline efficiency by automating extraction and transformation processes with SQL and Python, leading to a 30% faster data availability for analytics teams.
- Reduced query latency by 35% through the redesign of MySQL database schemas and targeted indexing, enabling near real-time insights for business decision-making.
- Created automated testing and deployment frameworks using Python scripts and Jenkins, which shortened the model production rollout by 40% and improved reliability.
- Translated complex machine learning results into user-friendly dashboards using Power BI and Tableau, empowering stakeholders to make quicker, data-driven decisions.
- Integrated AWS services such as S3 and EC2 to establish a cost-effective, scalable environment that cut infrastructure spending by 20% while supporting larger AI workloads.
- Maintained detailed documentation and version control on Git, accelerating onboarding by 50% and fostering seamless collaboration across the data science team.
- Actively contributed in Agile sprints by recommending workflow optimizations and automation strategies, increasing deployment cadence by 15% and boosting team productivity.

Generative AI Engineer

Dec 2020 - Mar 2022

JPMorgan Chase

- Delivered an AI-driven automation engine using LLMs and Python APIs that generated contextual customer responses, reducing support resolution time by 35% and improving CSAT scores.
- Designed and deployed prompt-optimized GPT workflows in the Pega low-code platform, enabling business users to auto-generate documentation and cutting manual drafting effort by 45%.
- Engineered multi-source ETL pipelines to feed generative models with curated, high-quality data, improving text generation accuracy by 28% while lowering model hallucination rates.

- Embedded AI-driven summarization into case management processes, enabling real-time knowledge retrieval and reducing agent training time by 30%.
- Built an interactive analytics layer in Power BI and Tableau to monitor generative model performance, identifying drift early and reducing retraining cycles by 20%.
- Integrated AWS Bedrock and Azure OpenAI services into enterprise workflows, ensuring scalable, secure generative AI deployments that lowered infrastructure costs by 12%.
- Spearheaded fine-tuning of domain-specific LLMs, increasing contextual understanding in customer service scenarios by 32% and improving automation accuracy.
- Guided cross-functional teams in applying responsible AI principles for model deployment, ensuring compliance with enterprise governance while accelerating release timelines by 25%.

PROJECTS

RSVP Movies Analytics Case Study

- Extracted and transformed large movie datasets using advanced SQL queries and Python (pandas), improving recommendation accuracy by 30% through refined user preference analysis.
- Constructed normalized relational database schemas with ER diagrams and implemented DDL commands, reducing data redundancy by 25% and enhancing query reliability.
- Developed interactive dashboards with matplotlib and Tableau, visualizing key metrics that guided content strategy and elevated user engagement across RSVP's platform.

Customer Churn Prediction Model

- Leveraged Python (scikit-learn, pandas) to develop a supervised ML model predicting customer churn with 85% accuracy by analyzing transactional and behavioral datasets.
- Applied feature engineering, hyperparameter tuning, and cross-validation to optimize model robustness, reducing false positive rates by 15%.
- Built interactive Power BI dashboards to visualize churn risk segments, enabling marketing teams to increase targeted retention campaigns and improve retention by 12%.

EDUCATION

Master's in Data Analytics and Visualization
Yeshiva University | New York

Aug 2023 - Jan 2025

Bachelor of Technology in Engineering
Jawaharlal Nehru Technological University | Hyderabad

Aug 2016 - Nov 2020

CERTIFICATIONS

- AWS Certified Cloud Practitioner - **Amazon Web Services**
- Advanced Certificate in Data Science - **upGrad**
- Introduction to Programming Using Python - **upGrad**